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METHOD FOR DETECTING AND PREVENTING INTRUSION IN A VIRTUALLY-WIRED SWITCHING FABRIC

ABSTRACT OF THE DISCLOSURE

A method for detecting and preventing intrusion in a virtually-wired switching fabric. An embodiment provides for a method in which a switch is programmed with MAC addresses which are authorized for packets processed at each switch port, based on the device coupled to that switch port. If the MAC address is authorized, the packet is forwarded. If it is not, the packet is dropped. Furthermore, MAC addresses that are learned at a port connecting two switches in the fabric are compared to MAC addresses that are expected at that port, based on the physical topology of the network. If an unexpected MAC address is detected, the topology may be traced to locate the host port through which the packet with the unauthorized MAC address entered the virtual network. Additionally, the physical topology of the network may be periodically compared to the expected topology to detect unexpected changes.